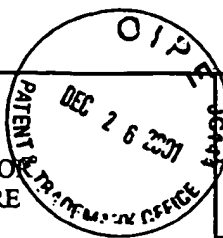


FORM PTO-1449 (Modified)

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.  
KLR: 7146.124SERIAL NO.  
09/933,862

RECEIVED

DEC 28 2001

APPLICANT: Baoxin, et al.

Group 2600

FILING DATE  
08/20/01GROUP  
2621

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
ND	AA	US Pat. No. 4,183,056	Jan. 8, 1980	Evans et al.			
ND	AB	US Pat. No. 5,805,733	Sep. 8, 1998	Wang et al.			
ND	AC	US Pat. No. 5,956,026	Sep. 21, 1999	Ratakonda			
ND	AD	US Pat. No. 5,995,095	Nov. 30, 1999	Ratakonda			
ND	AE	US Pat. No. 6,141,041	Oct. 31, 2000	Carlbon et al.			
ND	AF	US Pat. No. 6,141,060	Oct. 31, 2000	Honey et al.			
	AG						
	AH						
	AI						

## FOREIGN PATENT DOCUMENTS

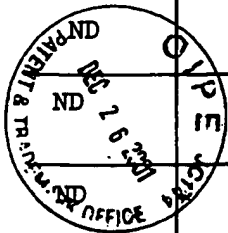
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AJ							
	AM							
	AN							
	AO							
	AP							
	AQ							
	AR							

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

ND		J. Canny, "A Computational Approach to Edge Detection",
		IEEE Trans. Pattern Anal. Machine Intelligence, Vol. 8, pp. 679-698, 1986
ND		Y. Wang, Z. Liu, and J-C Huang, "Multimedia Content Analysis - Using both Audio and Visual Cues,"
		IEEE Signal Processing Magazine, Vol. 17, No. 16, pp. 12-36, Nov. 2000
ND		D.D. Saur, Y-P. Tan, S.R. Kulkarni and P. Ramadge, "Automatic Analysis and Annotation of Basketball Video",
		Proc. Of SPIE, Vol. 3022, pp. 176-187, at least one year prior to the filing date

ND		D. Yow, B-L. Yeo, M. Yeung and B. Liu, "Analysis and Presentation of Soccer Highlights From Digital Video", Proc. 2 <sup>nd</sup> Asian Conference on Computer Vision, 1995
ND		T. Kawashima, K. Tateyama, T. Iijima and Y. Aoki, "Indexing of Baseball Telecast for Content-based Video Retrieval", Proc. International Conference on Image Processing, 1998
		B-L. Yeo and B. Liu, "On the Extraction of DC Sequence From MPEG Compressed Video", Proc. International Conference on Image Processing, 1995
		H.B. Lu, Y.J. Zhang and Y.R. Yao, "Robust Gradual Scene Change Detection", Proc. International Conference on Image Processing, 1999
		S.J. Golin, "New Metric to Detect Wipes and Other Gradual Transitions in Video", Proc. IS&T/SPIE Conference on Visual Communications and Image Processing, 1999
ND		M.R. Naphade, R. Mehrotra, A.M. Ferman, J. Warnick, T.S. Huang and A.M. Tekalp, "A High-Performance Shot Boundary Detection Algorithm Using Multiple Cues", International Conference on Image Processing, 1998 Proc. International Conference on Image Processing, 1998
ND		R. Lienhart, "Comparison of Automatic Shot Boundary Detection Algorithms", Proc. IS&T/SPIE Conference on Visual Communications and Image Processing, 1999
ND		Y. Rui, A. Gupta, A. Acero, "Automatically Extracting Highlights for TV Baseball Programs", Microsoft Research, Redmond, WA, 2000
ND		B. Li and M.I. Sezan, "Event Detection and Summarization in Sports Video", Sharp Laboratories of America, Camas, WA, 2001, at least one year prior to the filing date
ND		H. Pan, P. van Beek and M.I. Sezan, "Detection of Slow-Motion Replay Segments in Sports Video for Highlights Generation", Sharp Laboratories of America, Camas, WA, at least one year prior to the filing date
ND		J.S. Boreczky and L.D. Wilcox, "A Hidden Markov Model Framework for Video Segmentation Using Audio and Image Features", FX Palo Alto Laboratory, Palo Alto, CA, at least one year prior to the filing date
ND		S. Eickeler and S. Muller, "Content-Based Video Indexing of TV Broadcast News Using Hidden Markov Models", Gerhard-Mercator University Duisburg, Germany, Int'l Conf on Acoustic, Speech and Signal Processing, 1999
ND		W. Wolf, "Hidden Markov Model Parsing of Video Programs", Proc. Int. Conf. Acoustic, Speech, and Signal Processing, 1997
ND		F.R. Kschischang, "Factor Graphs and the Sum-Product Algorithm", IEEE Transactions on Information Theory, Vol. 47, No. 2, February 2001

RECEIVED  
DEC 28 2000  
Group 2600



EXAMINER	/Nhon Diep/	DATE CONSIDERED 06/01/2006
----------	-------------	-------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



PTO/SB/08B (08-03)  
Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>	
		Application Number	09/933,862
		Filing Date	August 20, 2001
		First Named Inventor	Li, et. al.
		Art Unit	2621
Examiner Name			
Sheet 1	of 1	Attorney Docket Number	7146.0124

RECEIVED

AUG 04 2004

Technology Center 2600

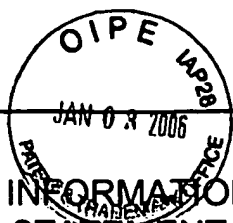
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
ND	CA	Lienhart, Pfeiffer and Effelsberg, "Video Abstracting," Communications of the ACM, December 1997, Vol. 40, No. 12, pp. 55-62.	
ND	CB	Yow, Yeo, Yeung and Liu, "Analysis and Presentation of Soccer Highlights From Digital Video," Proceedings, Second Asian Conference on Computer Vision, 1995, 5 pgs.	
ND	CC	Babaguchi, "Towards Abstracting Sports Video by Highlights," 2000 IEEE Conference, pps. 1519-1522.	
ND	CD	Kobla, DeMenthon Doermann, "Detection of Slow-Motion Replay Sequences for Identifying Sports Videos," Sept. 1999 IEEE, pps. 135-140	
ND	CE	Gong, Sin, Chuan, Zhang & Sakauchi, "Automatic Parsing of TV Soccer Programs," May 1995 IEEE, pps. 167-174	

Examiner Signature	/Nhon Diep/	Date Considered	06/01/2006
--------------------	-------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

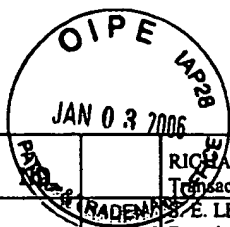


**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
(Use as many sheets as necessary)

<p><b>Complete if Known</b></p>					
			Application Number	9/933,862	
			Filing Date	August 20, 2001	
			First Named Inventor	Baoxin Li, et al.	
			Art Unit	2621	
			Examiner Name	TBD	
Sheet		of		Attorney Docket Number	7146.0124

U. S. PATENT DOCUMENTS					
Examiner Initials	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant, Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
ND		US-4,253,108	02-24-1981	Engel	
ND		US-4,298,884	11-03-1981	Reneau	
ND		US-5,109,482	04-28-1992	Bohrman, D.	
ND		US-5,452,016	09-19-1995	Ohara, et al.	
ND		US-5,521,841	05-28-1996	Arman, et al.	
ND		US-5,635,982	06-03-1997	Zhang, et al.	
ND		US-5,654,769	08-05-1997	Ohara, et al.	
ND		US-5,778,108	07-07-1998	Coleman, Jr.	
ND		US-5,920,360	07-06-1999	Coleman, Jr.	
ND		US-5,959,681	09-28-1999	Cho	
ND		US-5,959,697	09-28-1999	Coleman, Jr.	
ND		US-5,990,980	11-23-1999	Golin	
ND		US-6,055,018	04-25-2000	Swan	
ND		US-6,100,941	08-2000	Dimitrova, et al.	
ND		US- 6,144,375	11-07-2000	Jain, et al.	
ND		US-6,219,837	04-17-2001	Yeo, et al.	
ND		US-6,236,395	05-22-2001	Sezan, et al.	
ND		US-6,342,904	01-29-2002	Vasudevan, et al.	
ND		US-2002 0080162	06-27-2002	Pan, et al.	
ND		US-6,418,168	07-09-2002	Narita	
ND		US-2002 0141619	10-03-2002	Standridge, et al.	
ND		US-6,549,643	04-15-2003	Toklu, et al.	
ND		US-6,556,767	04-29-2003	Okayama, et al.	
ND		US-6,678,635	01-13-2004	Torinkere, et al.	
ND		US-6,724,933	04-2004	Lin, et al.	
ND		US-2004 0125124	07-01-2004	Kim, et al.	
ND		US-6,774,917	08-10-2004	Footte, et al.	
ND		US-6,970,510	11-2005	Wee, et al.	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
ND		SUNGHOO CHOI, YONGDUEK SEO, HYUNWOO KIM, and KI-SANG HONG, "Where are the ball and players?: Soccer Game Analysis with Color-based Tracking and Image Mosaick," Dept. of EE, Pohang University of Science and Technology, Republic of Korea, pp. 1-15.	
ND		VIKRANT KOBLA, DANIEL DeMENTHON, and DAVID DOERMANN, "Identifying Sports Videos Using Replay, Text, and Camera Motion Features," University of Maryland, Laboratory for Language and Media Processing; at least one year prior to filing date; 12 pages.	

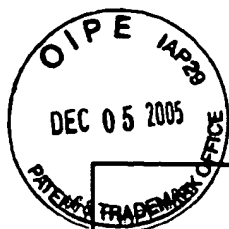


		RICHARD W. CONNERS and CHARLES A. HARLOW, "A Theoretical Comparison of Texture Algorithms," IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. PAMI-2, No. 3, May 1980, pp.204-222.	<input type="checkbox"/>
ND		E. LEVINSON, L. R. RABINER, and M. M. SONDDI, "An Introduction to the Application of the Theory of Probabilistic Functions of a Markov Process to Automatic Speech Recognition," American Telephone and Telegraph Company, The Bell System Technical Journal, Vol. 62, No. 4, April 1983, pp. 1035-1074.	
ND		LAWRENCE R. RABINER, "A Tutorial on Hidden Markov Models and Selected Applications in Speech Recognition," Proceedings of the IEEE, Vol. 77, No. 2, February 1989, pp. 257-286.	
ND		STEPHEN S. INTILLE, "Tracking Using a Local Closed-World Assumption: Tracking in the Football Domain," M.I.T. Media Lab Perceptual Computing Group Technical Report No. 296, pp. 1-62, Submitted to the Program in Media Arts and Sciences, School of Architecture and Planning on August 5, 1994.	
ND		PADHRAIC SMYTH, "Belief Networks, Hidden Markov Models, and Markov Random Fields: a Unifying View," Information and Computer Science Department, University of California, Irvine, CA, March 20, 1998, pp. 1-11.	
ND		NOBORU BABGUCHI, YOSHIHIKO KAWAI, YUKINOBU YASUGI, and TADAHIRO KITAHASHI, "Linking Live and Replay Scenes in Broadcasted Sports Video," Proceedings of ACM Multimedia 2000 Workshop on Multimedia Information Retrieval (MIR2000), pp. 205-208, November 2000.	
ND		LEXING XIE, "Segmentation and Event Detection in Soccer Audio," EE 6820 Project, Soccer Audio, Columbia University, May 15, 2001, pp. 1-9.	
ND		PENG XU, CHIH-FU CHANG, AJAY DIVAKARAN, ANTHONY VETRO, and HUIFANG SUN, "Algorithms and System for High-Level Structure Analysis and Event Detection in Soccer Video," Columbia University, ADVENT - Technical Report #111, June 2001.	
ND		HAO PAN, BAOXIN LI, and M. IBRAHIM SEZAN, "Automatic Detection of Replay Segments in Broadcast Sports Programs by Detection of Logos in Scene Transitions," IEEE ICASSP 2002, pp. 3385-3388.	
ND		LEXING XIE and SHIH-FU CHANG, "Structure Analysis of Soccer Video with Hidden Markov Models," ICASSP, 2002.	
ND		RICCARDO LEONARDI and PERANGELO MIGLIORATI, "Semantic Indexing of Multimedia Documents," IEEE 2002 (April - June 2002), pp. 44-51.	

Examiner Signature	/Nhon Diep/	Date Considered	06/01/2006
--------------------	-------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.





# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

## **Complete if Known**

Application Number	09/933,862
Filing Date	August 20, 2001
First Named Inventor	Boaxin Li
Art Unit	2613
Examiner Name	David J. Czekaj
Attorney Docket Number	KLR 7146.0124

Sheet 2 of 3

## **NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
ND		YEUNG, et. al., "Extracting Story Units from Long Programs for Video Browsing and Navigation," IEEE Proceedings of Multimedia '96, 1996, pages 296-305.	
ND		QIAN, et. al., "A Computational Approach to Semantic Event Detection," IEEE, 1999, pages 200-206.	
ND		VASCONCELOS, et. al., "Bayesian Modeling of Video Editing and Structure: Semantic Features for Video Summarization and Browsing," IEEE, 1998, pages 153-157.	
ND		SMOLIAR, et. al., "Content-Based Video Indexing and Retrieval," IEEE, 1994, pages 62-72.	
ND		MAYBURY, et. al., "Multimedia Summaries of Broadcast News," IEEE, 1997, pages 442-449.	
ND		YEO, et. al., "Retrieving and Visualizing Video," Communications of the ACM Vol. 40, No. 12, December 1997, pages 43-52.	
ND		GÜNSEL, et. al., Hierarchical Temporal Video Segmentation and Content Characterization," SPIE Vol. 3229, 1997, pages 46-56.	
ND		DEMENTHON, et. al., "Video Summarization by Curve Simplification," ACM Multimedia, 1998, pages 211-218.	
ND		PONCELEON, et. al., "Key to Effective Video Retrieval: Effective Cataloging and Browsing," ACM Multimedia, 1998, pages 99-107.	
ND		QIAN, et. al., "A Robust Real-Time Face Tracking Algorithm," IEEE, 1998, pages 131-135.	
ND		SMITH, et. al., "Video Skimming for Quick Browsing Based on Audio and Image Characterization," Carnegie Mellon University, July 30, 1995, pages 1-21, CMU-CS-95-186, Pittsburgh, PA.	
ND		ZHANG, et. al., "Content-Based Video Browsing Tools," SPIE Vol. 2417, 1995, pages 389-398.	
ND		YEUNG, et. al., "Video Visualization for Compact Presentation and Fast Browsing of Pictorial Content," IEEE Transactions on Circuits and Systems for Video Technology Vol. 7, No. 5, October 1997, pages 771-785.	
ND		DEL BIMBO, et. al., "A Spatial Logic for Symbolic Description of Image Contents", Journal of Visual Languages and Computing, 1994, pages 267-286, Academic Press Limited.	
ND		YOW, et. al., "Analysis and Presentation of Soccer Highlights from Digital Video," Proceedings, Second Asian Conference on Computer Vision (ACCV '95), 1995, pages 1-5, Department of Electrical Engineering, Princeton University.	
ND		COURTNEY, Jonathan D., "Automatic Video Indexing Via Object Motion Analysis," Pattern Recognition, Vol. 30, No. 4, 1997, pages 607-625, Elsevier Science Ltd.	
ND		AKSOY, et. al., "Textural Features for Image Database Retrieval," Intelligent Systems Laboratory, Department of Electrical Engineering, University of Washington, pages 1-5.	
ND		IYENGAR, et. al., "Models for Automatic Classification of Video Sequences," SPIE Vol. 3312, 1997, pages 216-227.	
ND		MANJUNATH, et. al., "Texture Features for Browsing a Retrieval of Image Data", IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 18, No. 8, August 1996, pages 837-842.	
ND		CHAUDHURI, et. al., "Improved Fractal Geometry Based Texture Segmentation Technique," IEE Proceedings-E, Vol. 140, No. 5, September 1993, pages 233-241.	
ND		ARMAN, et. al., "Content-Based Browsing of Video Sequences," Proceedings of ACM International Conference on Multimedia'94, October 1994, pages 1-7.	



# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

## Complete if Known

Application Number	09/933,862
Filing Date	August 20, 2001
First Named Inventor	Boaxin Li
Art Unit	2613
Examiner Name	David J. Czekaj
Attorney Docket Number	KLR 7146.0124

Sheet 3 of 3

ND	INTILLE, et. al., "Visual Tracking Using Closed-Worlds," M.I.T. Media Laboratory Perceptual Computing Section Technical Report No. 294, November 1994, pages 1-18.
ND	DIMITROVA, et. al., "Motion Recovery for Video Content Classification," ACM Transactions on Information Systems, Vol. 13, No. 4, October 1995, pages 408-439.
ND	SATOH, et. al., "Name It: Association of Face and Name in Video," Carnegie Mellon University, December 20, 1996, pages 1-17, CMU-CS-96-205, Pittsburgh, PA.
ND	PICARD, R.W., "A Society of Models for Video and Image Libraries," IBM Systems Journal, Vol. 35, Nos. 3 & 4, 1996, pages 292-312.
ND	LIENHART, et. al., "Video Abstracting," Communications of the ACM, Vol. 40, No. 12, December 1997, pages 55-62.
ND	BABAGUCHI, Noboru, "Towards Abstracting Sports Video by Highlights," IEEE, 2000, pages 1519-1522.
ND	KOBLA, et. al., "Detection of Slow-Motion Replay Sequences for Identifying Sports Videos," IEEE Conference, 1999, pages 135-140.
ND	GONG, et. al., "Automatic Parsing of TV Soccer Programs," IEEE, 1995, pages 167-174.
ND	HUANG, et. al., "Video Summarization Using Hidden Markov Model," IEEE 2001, pages 473-477.
ND	LAMBROU, et. al., "Classification of Audio Signals Using Statistical Features on Time and Wavelet Transform Domains," IEEE 1988, pages 3621-2624.
ND	GARGI, et. al., "Performance Characterization of Video-Shot-Change Detection Methods," IEEE Transactions on Circuits and Systems for Video Technology, Vol. 10, No. 1, February 2000, pages 1-13.
ND	LIU, et. al., "Detecting News Reporting Using Audio/Visual Information," IEEE 1999, pages 324-328.
ND	CHAN, et. al., "Real-Time Lip Tracking and Bimodel Continuous Speech Recognition," Department of Electrical and Computer Engineering, Coordinated Science Laboratory and Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana-Champaign, pages 1-6.

Examiner  
Signature

/Nhon Diep/

Date  
Considered

06/01/2006

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.